

10/568156

SEQUENCE LISTING

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<110> RODRIGUEZ-FRANCO, MARTA  
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WEISE, ANDREAS  
GORR, GILBERT

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<141> 2006-02-13

<150> PCT/EP2004/008580

<151> 2004-07-30

<150> EP 03450184.1

<151> 2003-08-11

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<170> PatentIn Ver. 2.1

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<210> 15

<211> 3053

<212> DNA

<213> *Physcomitrella patens*

<400> 15

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<210> 16

<211> 1879

<212> DNA

<213> *Physcomitrella patens*

<400> 16

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<210> 17

<211> 1823

<212> DNA

<213> *Funaria hygrometrica*

<400> 17

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<210> 18

<211> 419

<212> DNA

<213> *Funaria hygrometrica*

<400> 18

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<210> 19

<211> 1333

<212> DNA

<213> *Funaria hygrometrica*

<400> 19

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<213> *Funaria hygrometrica*

<400> 20

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<210> 21

<211> 937

<212> DNA

<213> Marchantia polymorpha

<400> 21

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<210> 22

<211> 3025

<212> DNA

<213> Marchantia polymorpha

<400> 22

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ttttttctaa	ttttatgaaa	agagataaat	atattaataa	tataggttat	ttagattatt	300
gaaattcaca	gaaaatacca	tttttgtctc	attcgatatg	ttctagatgt	gtgtgcgtat	360
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tttttatatgc	agatatttgc	ggatctttcc	aatcattatc	tagctcttgt	ttacattttt	600
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<210> 23

<211> 909

<212> DNA

<213> *Marchantia polymorpha*

<400> 23

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ctgtagtatc	ggtgttctcg	aagatcgggtc	ggtgtctgca	tctctccatc	tcgattcggt	360
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ggttccgagg	attagttttg	aagatgctgt	caatgggaag	tttagctctt	ggttcgtgat	480
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<210> 24  
 <211> 2146  
 <212> DNA  
 <213> *Physcomitrella patens*

<400> 24  
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 tcattctttc ttctctaccc tatagtgatg ggaaattatc ccaaactcaa tgtcatactc 180  
 caggcaattc agaaatatag tgagatgaat accaggaata ttatttcaca tcgacccta 240  
 tcgcccggga atgccactcc caccgcggaa tgagaaactc cttgaaaaaa caagtccctt 300  
 cccagctgcc cgaaatcggc cgcttggtca gcacggcacg acactgccc cgtgcaatcc 360  
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 tcttggtggc gggcagtggt cccgccaaact tcaccgtcac cctccacccc aacaagtggc 480  
 ccaaattact caggggcagc ccagcttcga aattttaagc ggtgaccgcc cttctcatc 540  
 gtcacgcgtt acttcttttt cactcaatcg agtctgttta ttattggccg ctaggaaatt 600  
 gcagcttcca actccgcac accgcgtgca gtacagtgga gatcttcaag agtgcctca 660  
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 cgcattccaca gtgatgggtc acgtatcaat aagcgaagct gcgttggcaa ctatggcaat 780  
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 ttgaaagtgg ttaatgtttt gtacatcatt actggatatg aaaataccaa taaaatgaaa 1320  
 tacaataaaa tatttttttg aaatgaaaat tggtttaaat aagcatgtaa ataatagacg 1380  
 gtggagtaaa gaaaaggtaa taaaaaaaaa agtatgaatt ctattactct tcaatataaa 1440  
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 ccaaccaata cacaccattg ttttgctgca aagctagggt ttctaaggcc acaattcaat 1560  
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 cttgctataa gaacactgct cctccgatct aaacctcgga ttgtgcgctt ctagatactg 2040  
 aatttgtttc gaccctgcct tgttgagtgg ccgtagaggc tcgacagtta ggatcagttg 2100  
 gccgttgaat ttagtgattg tgtagcgacc agtacgtcct gtaagg 2146

<210> 25  
 <211> 524  
 <212> DNA  
 <213> *Funaria hygrometrica*

<400> 25  
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 ctgcgcgata aggtgacag caaggcgcgg tattactgga taagagaagc ggccaaggcg 180  
 gcagccactg tgggtccactt tgctgcgtca ctacctactg cgattgtaat gacgagcggc 240  
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 tactcgctgt cccactcggt ttctgggtgt gcatccgaag tttctggatg gttgcccgtc 360  
 gttcaataaa ttgtcgcgcg tcgagctagc ggacactttt gtcaccgttc ttctctgttt 420  
 attctggacc agaggtgctg ttagctttgt tgtgtgtgag tccttgggga aatccctgcg 480  
 cgtcacgaga gtttattgca gggaagtgat aaagcgttgt gaag 524



<210> 26  
 <211> 2088  
 <212> DNA  
 <213> *Physcomitrella patens*

<400> 26  
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 acaattattc taataaataa tgataaaaat tagacatctt gcaataaaaat ttcttttttaa 180  
 aaatagatac ataacatgaa aaatatccca taaatagcta acaccatcaa aacatttgac 240  
 caaatatgca ctttttagatg tgtcaagaca aaaagaaata tttgcaagat tttggagtat 300  
 ctaaactaat gtttgccttc tttgcactat gagtaggatt tctttttattt tgtttagtga 360  
 aaagatacat tgcaatttgt tttcataata aaaactatac taatgaaata gtgctaaaaa 420  
 ataacaagat taaaaaaaca taacccttct tacaacctta aatccttcta attagactac 480  
 ctcaaagttg tgccatttag cacaaaaacc attctttttaa atctacttaa ccctccaatt 540  
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 gagattcaag caacggcgac tacgacgcgc atcacgcaat acaaagcatt gttagtatgt 840  
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 aaagctcttc tgttctagct aatctctagt accaagctca gacgtgtagc cgacgaagcc 1260  
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 aatctctcac agcaactggg caggggttga tccgaacgtg gaaaacgcag caaccgttgt 1440  
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 taaacatacc gggtggaatt tgtaccacc aggtcttgct cgggtgtccc tgtgcccag 2040  
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<210> 27  
 <211> 500  
 <212> DNA  
 <213> *Physcomitrella patens*

<400> 27  
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 gaatttgagt atgtgagttc actttgaaca tcccagaagc aaaagaatgg gttttttcat 180  
 gtttgaattt tattttgtat agttgtgttg agccgcgatt tctatctgtc acttggcttg 240  
 atattctgag tttctccgat acgaatagcg aagtcactt gaacatctgt aacggcagca 300  
 attgcgtcag gtcaatcctc tcagattctt tcgggtgctt tgtcgtaaac tagcttgatt 360  
 gttgtccatt aagcttgggt gcttttcgtg agaaagcatg aaacttctat gacgaaacc 420  
 ggttgattgt aatgtaacta gtttgattgt agtttgaatt tggtaatgac gttgtatgat 480  
 acataatgaa agtttcatga 500

<210> 28  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Synthetic  
       Primer  
  
 <400> 28  
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 <210> 29  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Synthetic  
       Primer  
  
 <400> 29  
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 <210> 30  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Synthetic  
       Primer  
  
 <400> 30  
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 <210> 31  
 <211> 23  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Synthetic  
       Primer  
  
 <400> 31  
 ggbatggacg agatggagtt cac 23  
  
 <210> 32  
 <211> 34  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Synthetic  
       Primer

<400> 32  
agcacatgca cacccaatac gcttgtcgca attc 34

<210> 33  
<211> 34  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 33  
gtcgtcatag acgacaagac cggggatcca cagc 34

<210> 34  
<211> 33  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 34  
tcagtgtgt ccgtgaatct ctctctctgc ttg 33

<210> 35  
<211> 34  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 35  
ctgtgttcgg attagactcc ccgtagcctt tgtg 34

<210> 36  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 36  
tcgattggcg agttgcaagg agggcaagg 29

<210> 37  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 Primer

<400> 37  
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<210> 38  
 <211> 30  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 Primer

<400> 38  
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<210> 39  
 <211> 30  
 <212> DNA  
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<220>  
 <223> Description of Artificial Sequence: Synthetic  
 Primer

<400> 39  
 gacctggaaa cctgcacaat cacgcataga 30

<210> 40  
 <211> 27  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 Primer

<400> 40  
 tagcataaga taaagatggt ctctacc 27

<210> 41  
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<400> 41  
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<210> 42  
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       Primer  
  
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       Primer  
  
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       Primer

<400> 46  
ttgatactcg agaagtccaa aataatttaa tgatac 36

<210> 47  
<211> 29  
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<220>  
<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 47  
catcttcgct aaggatgatc tacaacgag 29

<210> 48  
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<220>  
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Primer

<400> 48  
catcttcagt gtgctctacc tcacg 25

<210> 49  
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Primer

<400> 49  
ctactcgagc acatataata ctgccctagt gcc 33

<210> 50  
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Primer

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<211> 21  
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 gttacgctcg caatgcgtac t 21  
  
  
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 aactttctgc tgtcttgggt gcattg 26  
  
  
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       Primer  
  
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catggagaag aaatacttgc acatcaaaag 30

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Primer

<400> 61  
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<210> 62  
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Primer

<400> 62  
catttttttag aatgataccta caggagttc 29

<210> 63  
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Primer

<400> 63  
agtctggcaa gttcccttcg 20

<210> 64  
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<212> DNA  
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Primer

<400> 64  
gaagagaagg aagggtggga atg 23

<210> 65  
<211> 22  
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<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 65  
ggaagaagag tcgagaagcg at 22

<210> 66  
<211> 30  
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<220>  
<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 66  
catcttgtcc aactaccgcg acccgaaccc 30

<210> 67  
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<220>  
<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 67  
aatctcgagt agcataagat aaagatgttc tctacc 36

<210> 68  
<211> 34  
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<220>  
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Primer

<400> 68  
ggtaaagctc tcgagtgcag tagacgacaa aatg 34

<210> 69  
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<220>  
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Primer

<400> 69  
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<210> 70  
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 <210> 71  
 <211> 33  
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       Primer  
  
 <400> 71  
 caactcgaga tcggtctgta agccctgtat ttg 33  
  
  
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       Primer  
  
 <400> 72  
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 <210> 73  
 <211> 31  
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       Primer  
  
 <400> 73  
 ttactcgaga ctctactaat tgacaagtat g 31  
  
  
 <210> 74  
 <211> 23  
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       Primer  
  
 <400> 74  
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<210> 75  
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           Primer  
  
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 <210> 76  
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           Primer  
  
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 gtgcctcgag ccacatcccg accgcc 26  
  
  
 <210> 77  
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           Primer  
  
 <400> 77  
 agcacctcga gtactgccct agtgccctaa tc 32  
  
  
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           Primer  
  
 <400> 78  
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 <211> 22  
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Primer

<400> 79  
atgcatggca aaacatcccc tg 22

<210> 80  
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<212> DNA  
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<220>  
<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 80  
catggagatg aaatgttctg 20

<210> 81  
<211> 34  
<212> DNA  
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<220>  
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Primer

<400> 81  
ttaactcgag atacaagagt tataaatcat atac 34

<210> 82  
<211> 36  
<212> DNA  
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<220>  
<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 82  
atatctcgag atgcatgtaa gataattcca attaga 36

<210> 83  
<211> 29  
<212> DNA  
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<220>  
<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 83  
cattgctaaa atctctccac actcgaatc 29

<210> 84  
<211> 33  
<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 84

atatctgcag tcatgaaact ttcattatgt atc

33

<210> 85

<211> 35

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 85

atatgcggcc gcggaacgaa tttgtcgagc tctct

35

<210> 86

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 86

ctttcgtggt gcctcaagag tg

22

<210> 87

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 87

catttcttaa tacggacctg cc

22

<210> 88

<211> 39

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 88

atatctcgag gaattcattt ccattaacga gaatatgac

39

<210> 89  
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 <400> 89  
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 <210> 90  
 <211> 21  
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         Primer  
  
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 <210> 91  
 <211> 20  
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         Primer  
  
 <400> 91  
 tttcgcgaag ttacctaacc 20  
  
  
 <210> 92  
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         Primer  
  
 <400> 92  
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 <210> 93  
 <211> 20  
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         Primer

<400> 93  
gttaacgaag gaggtgtccg 20

<210> 94  
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<212> DNA  
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<220>  
<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 94  
aagcttagca agcagctctc gcag 24

<210> 95  
<211> 21  
<212> DNA  
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<220>  
<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 95  
atcgacgata gactgcaagc c 21

<210> 96  
<211> 22  
<212> DNA  
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<220>  
<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 96  
aggagtgtta cacatctttt ac 22

<210> 97  
<211> 22  
<212> DNA  
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<220>  
<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 97  
ggctaagacg acgcattctg tg 22

<210> 98  
<211> 22  
<212> DNA  
<213> Artificial Sequence



<220>  
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           Primer

<400> 98  
 ggatccgaga ggaaagagag ag 22

<210> 99  
 <211> 22  
 <212> DNA  
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<220>  
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           Primer

<400> 99  
 cgcttacaat gatcctgcat ag 22

<210> 100  
 <211> 22  
 <212> DNA  
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<220>  
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           Primer

<400> 100  
 tcdgtgaatc aatctcgtcc at 22

<210> 101  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence

<220>  
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           Primer

<400> 101  
 cggtacctac aagggcctct cg 22

<210> 102  
 <211> 22  
 <212> DNA  
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<220>  
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           Primer

<400> 102  
 tgggacgtat cagggtacgt ct 22

<210> 103  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
Primer

<400> 103  
tatccggagg ttcccgcgac acc